Amendments to the Claims

This listing of claims replaces all prior versions and listings of claims in this application.

Listing of Claims:

1. (Currently Amended) Method for processing data of a picture to be displayed on a display panel with persistent luminous elements during a frame comprising a plurality of subfields, each subfield comprising an addressing phase during which the luminous elements of the panel are activated or not in accordance with the picture data and a sustain phase during which the activated luminous elements are illuminated by sustain pulses, wherein it comprises the following steps:

- computing, for each subfield, the amount of activated luminous elements in each line of luminous elements of the display panel, called line load,

- calculating, for each subfield, for a current frame and a plurality of frames preceding said current frame, the maximal line load difference between two consecutive lines of the display panel, and

- selecting, for each subfield, a sustain frequency reduced in accordance with its maximal load difference in order to reduce line load effect.

2. (Previously Presented) Method according to claim 1, wherein the calculation of the maximal load difference is only carried out for lines whose load is greater than a minimal load.

3. (Previously Presented) Method according to claim 2, wherein the minimal load for a line is equal to 10% of the amount of luminous elements in a line of the display panel.

4. (Currently Amended) Method according to claim 1, wherein the maximal line load difference is calculated for each subfield of a current frame and a plurality of frames preceding said current frame between two consecutive lines of the display panel and the maximal load difference, which is used for selecting the sustain

frequency, is the mean value of maximal load differences calculated for said plurality of frames of a line.

Claim 5 (Cancelled)

6. (Previously Presented) Method according to claim 1, wherein for adjusting the number of sustain pulses of each subfield in accordance with the number of luminous elements to be activated for displaying the current picture and with the selected sustain frequency for said subfield, it comprises the following steps:
- measuring a first average power level representative of the number of luminous elements to be activated for displaying the current picture,
- calculating, for each subfield, an adjustment coefficient corresponding to the ratio between the selected sustain frequency and a standard sustain frequency,
- calculating a total amount of sustain pulses in a frame, said total amount corresponding to the sum of elementary amounts of sustain pulses, each elementary amount of sustain pulses being relative to a subfield and being the product of a maximal amount of sustain pulses for said subfield with the adjustment coefficient of said subfield,
- computing a second average power level representative of said total amount of sustain pulses in a frame, and
- selecting, for each subfield, a number of sustain pulses being reduced in accordance with the maximal value of said first and second average power levels.

Claims 7-12 (Cancelled)

13. (Previously Presented) Method according to Claim 1, wherein it further comprises the following steps:
- encoding the picture data into subfield data,
- calculating the load of each subfield on the basis of said subfield data, and
- adjusting the number of sustain pulses of the subfields on the basis of their loads in order to have a same relation of proportionality between the luminance produced by the persistent luminous elements for the subfields and their weights and for adjusting the number of sustain pulses of a subfield, it comprises the following steps :
- providing a first number of sustain pulses for said subfield,

- defining a correction value to be subtracted to said first number of sustain pulses on the basis of the load and the first number of sustain pulses of said subfield;
- subtracting said correction value from said first number of sustain pulses in order to have a second number of sustain pulses for said subfield and

wherein the second numbers of sustain pulses of the plurality of subfields are rescaled in order to redistribute in each subfield an amount of the subtracted sustain pulses proportionally to its second number of sustain pulses.

14. (Previously Presented) Method according to claim 1, wherein it further comprises the following steps:
- encoding the picture data into subfield data,
- calculating the load of each subfield on the basis of said subfield data, and
- adjusting the number of sustain pulses of the subfields on the basis of their loads in order to have a same relation of proportionality between the luminance produced by the persistent luminous elements for the subfields and their weights and

wherein before the step of adjusting the number of sustain pulses of each subfield on the basis of its load, said number of sustain pulses is rescaled in order that the average power level needed by the display means for displaying the picture be approximately equal to a fixed target value.

Claim 15 (Cancelled)

16. (Currently Amended) Device for processing data of a picture to be displayed on a display panel with persistent luminous elements during a frame comprising a plurality of subfields, each subfield comprising an addressing phase during which the luminous elements of the panel are activated or not in accordance with the picture data and a sustain phase during which the activated luminous elements are illuminated by sustain pulses, wherein it comprises:
- means for computing, for each subfield, the amount of activated luminous elements in each line of luminous elements of the display panel, called line load, and for calculating, for each subfield, for a current frame and a plurality of frames preceding said current frame, the maximal difference of line loads of two consecutive lines of the display panel, and

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- means for selecting, for each subfield, a lower sustain frequency being reduced in accordance with its maximal load difference in order to reduce line load effect.

17. (Previously Presented) Device according to claim 16, wherein the calculation of the maximal load difference is only carried out for lines whose load is greater than a minimal load.

Claim 18 (Cancelled)

19. (Previously Presented) Device according to claim 16, wherein it comprises further a time filter for calculating, for each subfield, a mean value of maximal line load differences for the current frame and a plurality of frames preceding said current frame between two consecutive lines and selecting means for selecting a lower sustain frequency according to said mean value of maximal line load differences.

Claim 20 (Cancelled)

21. (Previously Presented) Device according to claim 16, wherein it comprises:
- a calculation means for calculating a first average power level representative of the power needed by the display panel for displaying the current picture with a reference sustain frequency,
- a first look up table for delivering, for each subfield, an adjustment coefficient in accordance with the corresponding maximal difference of line loads, said adjustment coefficient corresponding to the ratio between the selected sustain frequency for said subfield and a standard sustain frequency,
- a multiplier for multiplying, for each subfield, said adjustment coefficient with a maximal amount of sustain pulses and delivering an adjusted maximal amount of sustain pulses for each subfield,
- an adder for summing the adjusted maximal amount of sustain pulses of all subfields of the frame,
- a second look up table for converting said sum of adjusted maximal amount of sustain pulses into a second average power level,

- a means for selecting the maximal level between the first and second average power levels, and

- a third look up table for converting said maximal level into an amount of sustain pulses for each subfield.

Claims 22-27 (Cancelled)

28. (Previously Presented) Device according to Claim 16, wherein it comprises:
- means for encoding the picture data into subfield data,
- means for calculating the load of each subfield on the basis of said subfield data, and
- means for adjusting the number of sustain pulses of the subfields on the basis of their load in order to have a same relation of proportionality between the luminance produced by the persistent luminous elements for the subfields and their weights and the means for adjusting the number of sustain pulses of a subfield comprises
- means for providing a first number of sustain pulses for said subfield,
- correction means for defining a correction value to be subtracted to said first number of sustain pulses on the basis of the load and the number of sustain pulses of said subfield; and
- means for subtracting said correction value from said first number of sustain pulses in order to have a second number of sustain pulses for said subfield and

comprises means for rescaling the second numbers of sustain pulses of the plurality of subfields in order to redistribute in each subfield an amount of the subtracted sustain pulses proportionally to its second number of sustain pulses.

29. (Previously Presented) Device according to claim 16, wherein it comprises:
- means for encoding the picture data into subfield data,
- means for calculating the load of each subfield on the basis of said subfield data, and
- means for adjusting the number of sustain pulses of the subfields on the basis of their load in order to have a same relation of proportionality between the luminance produced by the persistent luminous elements for the subfields and their weights and comprises means for rescaling, before adjusting the number of sustain pulses of each subfield on .the basis of its load, said number of sustain pulses in order that the

average power level needed by the display means for displaying the picture be approximately equal to a fixed target value.

Claim 30 (cancelled)